

The Relationship between Personal Factors and its Effect on Internet Usage

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Abstract

The use of communication technology is growing rapidly in colleges and universities. The objectives of this study are to identify the effect between age, level of the study, field of the study, gender and income on attitudes toward the Internet, problems in using the Internet and gratification of Internet usage. The present study used the quantitative method by means of a questionnaire survey as a means of achieving its objectives. Sample size for this study is 440 and University Putra Malaysia is chosen as a location. Also quota sampling applied for this investigation. Personal factors in this study include (age, gender, income, level of study and field of study) of respondents. The findings of the study revealed significant relationships between age and attitudes towards Internet, problems in using the Internet and gratification of Internet usage. In addition, there is a significant relationship between educational achievement level and problems in using the Internet. There is a significant relationship between income and attitudes towards Internet, problems in using the Internet and gratification Internet usage.

Keywords: Internet usage; Age; Level of education; Gender; Field of study; Income; Attitudes toward internet; Problems in using internet; Gratifications of using internet; Malaysia

Introduction

According to Internet World Stats [1] as of March; in Asia: 872,526,978 people use the Internet. In Malaysia in 2010, 16,902,600 million people use the Internet, indicating 64.6% penetration in a population of 26,160,256 in general [2]. The use of communication technology is growing rapidly in colleges and universities. The assumption about the Internet is that it benefits college students tremendously and learning appears to be a rich field that is just beginning to be discovered. According to Owston [3] educators around the globe have shown a great interest in the World Wide Web more than in any other recent technologies.

According to FadhullahSuhaimi Abdul Malek, the number of Internet subscribers in Malaysia is expected to reach the 10 million mark in the next five years. His estimation is based on the growing trend of Internet users in the last three years as Malaysia moved towards advanced information, communications and multimedia services [4].

As internet world stats [2] notes in 2004 the number of subscribers was 2.9 million; in 2005 it increased to 3.5 million subscribers, and in 2006 the number of Internet subscribers in Malaysia was close to 5.0 million. This is an encouraging growth trend, and most of the Internet subscribers are expecting high-speed broadband infrastructure. The number of Internet users in Malaysia in 2010 is estimated to be about 16,902,600 million people uses the Internet indicating 64.6% penetration in population of 26,160,256 in general [2].

Literature Review

Age, gender and level of education

In terms of the usage patterns of the Internet, studies have shown that there were no differences with regards to the Internet usage patterns on the most common activities associated with the access to the Internet. This is can be seen from the findings of the study conducted by Sam et al. [5] on computer usage, self-efficacy, computer anxiety and attitudes towards the Internet among undergraduate students whereby the findings of this study revealed that all the respondents has indicated similar usage patterns concerning the most common activities associated with using the Internet.

Furthermore, the findings of Sam et al. [5] study also revealed that undergraduate students in Malaysia, specifically from the Faculty of Computer Science and Information Technology tend to use the Internet more extensively for downloading software and games as compared to undergraduate students from the Faculty of Applied and Creative Arts whom tend to use the Internet more significantly and extensively for something else. However, in terms of time spent on the Internet, the findings of Sam et al. [5] study have not shown any significant differences with regard to gender and time spent on the Internet. Apart from this, the findings of the study revealed that there was a significant difference with regards to the level of usage based on faculties whereby the findings of the study have revealed that undergraduate students from the Faculty of Computer Science and Information Technology and undergraduate students from the Faculty of Applied and Creative Arts recorded significantly more time in using the Internet as compared to undergraduate students from other faculties.

However, the findings of Selwyn [6] study had revealed that female undergraduate students were more likely to use the Internet for academic purposes such as information seeking as compared to the male counterparts which tend to use the Internet for other reasons. These findings obviously indicate contrasting results as compared to the findings of Sam et al. [5] study which is supported by Mossberge et al. [7] which suggests that "gender differences in terms of Internet usage and engagement have all but disappeared".

Furthermore, Kraus and Shullman [8] assured that the amount of time spent online (on the Internet) has risen significantly over the years whereby the findings of their study on the tracking lifestyle, media habits and spending patterns among Americans aged between 18 to

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29 years old have shown a significant increase in terms of time spent online (on the Internet) more than 40 hours a week.

The findings of study on Internet usage in Hong Kong, the annual survey, revealed that the distribution of education levels of Internet users has remained stable across nine years and almost half of all Internet users (between 40 to 45%) are comprised of users with either associate degree or high school as their highest level of educational achievement, respectively. However, the Internet penetration rates among users with associate degrees have risen dramatically and have almost reached 100% with regards to the Internet usage. This is significantly higher in terms of the rate of penetration as compared to users who have middle level of education which has increased from 49% in 2000 to 79% in 2008 while Internet users with the lowest level of education has recorded an increase of internet penetration rates from 13% in 2000 to 29% in 2008.

Income

In a study conducted in the western coastal of Malaysia by Jaafar and Sulaiman [9] has revealed that a majority of the respondents of the study earned between RM500 and RM2,499 per month. This obviously indicates the average monthly household income of the general Malaysian families. The findings of the study also revealed that people with lower household monthly income of less than RM2,500 per month tend to spend lesser time using computers at home as compared to other household income groups. The findings of the study also revealed that users of computers, specifically the Internet who are classified under the middle income group tend to use the computers largely for surfing the Internet as compared to other activities concerning the computer such as for typing purposes, organizing data, word processing etc. Although these categories of computer users have the financial means to access information elsewhere, the findings of the study revealed that they still prefer to use the Internet to get the latest information in the fastest time period. This preference of using the computer clearly indicates that the computer is a good and useful tool to help circulate the flow of information within society. The findings of the study also revealed significant differences in terms of computer usage in accordance to the household income of the users. In this case, the findings of the study have shown that the lower and middle income group of users tends to spend lesser time in using the computers at home as compared to the higher income group of users who tend to spend a significantly longer time period using the computers. This could partly be attributed to the fact that users from the higher income group could afford higher electricity bills due to the more extensive usage of the computers and Internet access as compared to those in the lower income groups.

Attitudes towards the internet

In terms of attitudes towards the Internet, a 2010 study conducted by Chien et al. [10] in Taiwan was largely aimed at analyzing college students' attitudes toward the Internet based on a 6-T model comprising of Tool, Toy, Telephone, Territory, Treasure of Information and Trade. The study was largely focused on analysing gender and grade level difference in terms of respondents' attitudes towards the Internet, especially to study whether there is any significant difference in terms of whether gender and grade level could have a significant contributing effect on the respondents' attitudes towards the Internet. The findings of the study clearly revealed that out of the 6 models outlined in the study, tool and toy were identified as the most likely factor to affect the respondents' attitudes towards the Internet while the telephone was identified as the least likely factor to affect the attitudes of the

respondents towards the Internet. In terms of gender differences, the findings of the study have shown that male respondents tend to have a more positive attitude towards the toy and telephone factors as compared to female respondents while graduate students in the study have shown a more positive attitude toward tool, information and trade aspects of the Internet as compared to respondents of the study who were undergraduate students.

Problems in using the internet

There have been studies conducted in the past in analysing the problems or shortcomings with regard to the Internet usage. One such study found is the study conducted by Mui et al. [11] which examined the level of Internet usage among Malaysian construction industry workers. The findings of the study revealed that some of the major problems with regards to the Internet usage are the speed of the Internet which was found to be too slow and problems with regards to virus attacks which were transmitted via the Internet. In relation to this, a total of 59% of the respondents of the study had indicated the speed of the Internet to be a major problem while 50% of the respondents of the study had highlighted virus attacks as a major problem when it comes to using the Internet. The two main problems highlighted by the respondents of the study could be overcome by means of anti-virus software while in terms of the speed of the Internet; this can be overcome by means of better infrastructure. Apart from this, another major problem highlighted by 47% of the respondents of the study was connection problems and the frequency of disconnecting from the Internet. Again, problems with regards to the connection and frequency of disconnection could be due to the poor infrastructure capability of the Internet Service Provider (ISP) coupled with the significant increase in the number of Internet users in Malaysia from 13,000 users in 1995 to 1.2 million in 2000 has resulted in 'traffic congestion' in terms of connection to the Internet. Part of this problem is attributed to the number of ISPs in operation whereby in 2000, a total of six ISPs have been given licenses to operate however only three had used the license to provide Internet access to the subscribers, with the latest ISP only began operation in 2001 [12].

The findings of the study also revealed a number of other problems which include difficulty to sieve information where a total of 27% of the respondents of the study had highlighted this to be another form of problem, followed by 21% of the respondents whom had said error in sending and receiving emails to be another problem with regards to using the Internet and finally, the same percentage of respondents (21%) had also revealed that they seemed to be having problems with regards to security when using the Internet.

Gratifications of using the internet

Nyland has conducted a study to investigate the gratifications of the Internet users with regards to using the Internet for social networking, e-mails and face-to-face communication. The main objective of the study was to examine the motivations in using the Internet for social networking. The study largely used the theory of the niche as a means of comparing the gratifications obtained when using the Internet for social networking as compared to other forms of communication which include emails and face-to-face communication. The findings of the study have shown that users of the Internet found gratifications in using the Internet for social networking as compared to face-to-face communication. This clearly show that users of the Internet found it more convenient to use the Internet to communicate with one another as compared to the conventional form of communication which is face-to-face communication [13].

The findings of the study is partly attributed to the ability of the social networking to fulfill the entertainment aspects of the users, especially in terms of the gratification of the users when using the Internet for social networking. Apart from this, it could also be due to the fact that although the format of the messaging features of social networking and emails could be similar, however, the additional features of the social networking such as personal content has made the medium to be more of a diversionary medium to the users and this has resulted in the users to spend a significantly longer time period in such social networking sites. This has clearly given the indications that social networking's popularity could be attributed to its convenient nature of usage together with its diversionary nature. In spite of this, although social networking sites could be more convenient and entertaining, however they could also be less apt in terms of fulfilling the social gratifications needs of the users. This has resulted in a significantly lower score as compared to the face-to-face communication in terms of fulfilling the social gratifications needs of the users.

Five groups of independent variables, namely, age, level of study, gender, field of study, income have been to see the relationship of the attitude toward the Internet, the gratifications of Internet usage, problems of the Internet. The search framework of the study is shown in Figure 1.

Research Methodology

Survey design was chosen in the study so that the questionnaire could be sent to a large number of informants, making the collection of great samples feasible. This study was conducted in University Putra Malaysia (UPM), Serdang, Malaysia. The design of the study required data to be collected from local students in three major races such as Malay, Chinese, and Indian who are doing their Bachelor, Master and PhD in this university and they are known as current or active students. Sample size for this study is 440. In addition, pre-testing was conducted among 40 respondents.

Result and Discussion

Demographic of the respondents

All data before analyzing were subjected to the normality test. The result shows that all data were normal. (Table 1) shows that 32.3 %

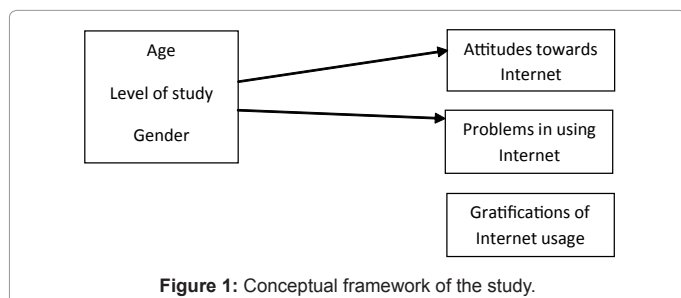


Figure 1: Conceptual framework of the study.

| Variables | Frequency | Percentage |
|-----------------------|-----------|------------|
| Gender | | |
| Male | 142 | 32.3 |
| Female | 298 | 67.7 |
| Level of study | | |
| Undergraduate | 349 | 79.3 |
| Postgraduate | 91 | 20.7 |

Table 1: Demographic profile of the respondents (n=440).

of the respondents were male and 67.7% were female. The race of the respondents of this study showed 67.2% were Malay and 25% were Chinese, with 4 percent Indian. As shown in Table 1, 79.3% of the respondents were undergraduates and 20.7% were postgraduate.

Attitudes towards Internet

As shown in Table 2, "Internet is the fastest way to research knowledge" was a predominant opinion toward the use of the Internet (M=4.45, S.D=0.78), followed by "Internet is a universal library" (M=4.40, S.D=0.82). Therefore, it can be concluded that the respondents have a positive attitude toward the impact the Internet brings to people's lives. They believe that the Internet is the fastest way to research knowledge and Internet is a way to provide learning for the people in order to do research. Graphics and Center (1998) in a ninth survey that was conducted in America find that the number of people to whom the Internet is indispensable is getting bigger and bigger. Findings that are obtain from the earlier studies consistent with the results of this research concerning those students who have positive attitudes toward the Internet [10,14-17].

Problems in using internet

Regarding the problems in using the Internet faced by the respondents, highest mean related to slow Internet connection (M=3.58, SD=0.96) followed by overload of information on the Internet (M=3.50, SD=0.91). The lowest mean related to the Internet being too complicated to use with (M=2.25, SD=0.89) (Table 3). The finding of this study is consistent with previous studies that reported the main problem in using the Internet related to the slowness in downloading [11, 18,19].

Gratifications of using internet

As shown in Table 4, in the cognitive dimension "to get information about something" is the highest mean (M=4.38, S.D=0.70). In the affective dimension "because it's entertaining" (M=4.12, S.D=0.76) was the highest mean. The item "I can do things in my own space" (M=4.09, S.D=0.80) was the highest mean in personal integration dimension in gratification of Internet usage. In escape dimension "To relax and unwind" (M=4.21, S.D=0.74) was the highest mean. In the social integration dimension "to keep in touch with people" was the highest mean" (M=4.15, S.D=0.73). Cognitive dimension was the highest dimension among all gratification of Internet usage dimensions (M=4.18) and social integration was the lowest (M=3.79).

Relationship between age and attitudes toward using internet

A correlation analysis was conducted between age and attitude toward Internet. The results indicated that there was a positive and significant relationship between attitude toward the Internet and age (r=0.089, p<0.05). Therefore this relationship is significant with 93.7% confidence level (Table 5).

Relationship between age and problems in using internet

A correlation analysis was conducted between age and problems of using Internet. The results indicated that there was a negative and significant relationship between age and problems of using Internet (r=-0.128, p>0.05) (Table 6). Maybe because of improving their Internet skill and Internet experience is positively related to how long an individual has used the Internet [20].

Relationship between age and gratifications of using internet

A correlation analysis was conducted between age and gratification

| Attitude (%) | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Meanc | S.D |
|--|-------------------|----------|---------|-------|----------------|-------|------|
| Internet is the fastest way to research knowledge | 1.4 | 1.4 | 6.4 | 32.5 | 58.3 | 4.45 | 0.78 |
| Internet is a universal library | 2.0 | 1.1 | 5.9 | 36.6 | 54.4 | 4.40 | 0.82 |
| Internet is a way to provide learning for the people in order to research | 0.7 | 2.3 | 8.2 | 44.3 | 44.5 | 4.29 | 0.76 |
| It is exciting to get information about Internet | 0.7 | 1.4 | 15.7 | 41.7 | 40.5 | 4.20 | 0.79 |
| Internet provides endless freedom to people | 1.1 | 1.8 | 15.7 | 39.5 | 41.9 | 4.19 | 0.84 |
| Internet has potential to be effective training tool | 0.7 | 1.8 | 16.5 | 53.0 | 28.0 | 4.05 | 0.76 |
| Internet creates addiction | 1.4 | 3.9 | 20.7 | 35.9 | 38.1 | 4.05 | 0.92 |
| Internet is vital in enhancing exchange of cultures | 0.9 | 1.8 | 18.2 | 49.8 | 29.3 | 4.04 | 0.79 |
| Internet creates tendency for people to get prepared knowledge | 1.1 | 2.3 | 14.3 | 57.0 | 25.3 | 4.02 | 0.76 |
| There should be any nervous while making shopping on the Internet | 2.3 | 7.5 | 34.2 | 38.0 | 18.0 | 3.61 | 0.93 |
| Internet causes the user to be far away from real life | 3.6 | 9.8 | 30.5 | 35.2 | 20.9 | 3.60 | 1.03 |
| Internet includes unnecessary, non-useful knowledge | 5.2 | 12.3 | 25.9 | 36.4 | 20.2 | 3.54 | 1.10 |
| Internet is a digital place that creature close relationship among societies | 1.6 | 6.1 | 38.0 | 45.7 | 8.6 | 3.53 | 0.80 |
| Having a friend on Internet is temporary | 2.5 | 9.8 | 34.5 | 38.6 | 14.6 | 3.52 | 0.94 |
| It is not safe to shop on the Internet | 2.5 | 14.3 | 41.1 | 31.2 | 10.9 | 3.33 | 0.93 |
| Chatting on the Internet prevent people from socializing | 5.2 | 15.2 | 33.9 | 32.0 | 13.7 | 3.33 | 1.05 |
| Internet creates cultural dilemma | 2.0 | 12.0 | 52.0 | 26.4 | 7.6 | 3.25 | 0.83 |
| Internet destroys societies | 5.7 | 20.5 | 41.3 | 25.0 | 7.5 | 3.08 | 0.98 |
| Internet makes people to be alone | 10.5 | 19.5 | 36.6 | 24.8 | 8.6 | 3.01 | 1.09 |

Table 2: Distribution of respondents according to attitudes towards Internet usage (n=440).

| Variables (%) | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Mean | S.D |
|--|-------------------|----------|---------|-------|----------------|------|------|
| Internet connection is slow | 1.6 | 10.9 | 33.9 | 34.5 | 19.1 | 3.58 | 0.96 |
| Overload of information on the Internet | 4.5 | 27.0 | 39.1 | 24.5 | 4.9 | 3.50 | 0.91 |
| It takes too long to view or download pages | 3.4 | 8.9 | 38.9 | 37.3 | 11.5 | 3.44 | 0.92 |
| Privacy concern and loss of personal information | 3.4 | 11.8 | 40.7 | 34.1 | 10.0 | 3.35 | 0.93 |
| Internet connection is expensive | 4.3 | 19.8 | 35.2 | 27.7 | 13.0 | 3.25 | 1.05 |
| English language for people who are not native | 3.0 | 12.0 | 48.6 | 30.5 | 5.9 | 3.24 | 0.84 |
| It wastes too much time | 6.4 | 21.8 | 35.9 | 26.8 | 9.1 | 3.10 | 1.04 |
| Difficulty in finding relevant information | 4.5 | 27.0 | 39.1 | 24.5 | 4.9 | 2.97 | 0.94 |
| Lack of access | 4.8 | 28.2 | 38.6 | 23.9 | 4.5 | 2.92 | 0.94 |
| Lack of time | 7.0 | 30.2 | 38.6 | 21.4 | 2.8 | 2.82 | 0.93 |
| Lack of internet knowledge | 8.4 | 37.0 | 41.1 | 10.9 | 2.6 | 2.62 | 0.87 |
| Internet is too complicated to use | 20.2 | 41.1 | 30.0 | 7.3 | 1.4 | 2.28 | 0.91 |

Table 3: Distribution of respondents according to problems in internet usage (n=440).

of using Internet. The results indicated that there was a positive and significant relationship between age and gratifications of using Internet ($r=0.091$, $p \geq 0.05$) (Table 7).

Relationship between level of study and attitudes toward using internet

The mean differences for each group of respondents' level of the study and attitudes toward Internet usage were measured by independent *t*-test. The results indicated there was no significant difference between level of the study and attitudes toward Internet usage (Table 8).

Relationship between level of study and problems in using internet

The mean differences for each group of respondents' level of the study and problems in using Internet were measured by independent *t*-test. The results indicated there was significant difference between level of the study and problems in using Internet (Table 9).

Relationship between level of study and gratifications of internet usage

The mean differences for each group of respondents' level of

the study and gratifications of Internet usage were measured by an independent *t*-test. The results indicated there was no significant difference between level of the study and gratifications of Internet usage (Table 10).

The relationship between gender and attitudes towards using the internet

The mean differences for each group of respondents' gender and attitudes towards using Internet were measured by independent *t*-test. The results indicated there was no significant difference between gender and attitudes towards using Internet (Table 11).

The relationship between gender and problems in using the internet

The mean differences for each group of respondents' gender and problems in using the Internet were measured by an independent *t*-test. The results indicated there was no significant difference between gender and problems in using the Internet (Table 12).

Relationship between gender and gratifications of using internet

The mean differences for each group of respondents' gender and

| Variables | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Mean | S. D |
|--|-------------------|----------|---------|-------|----------------|-------------|------|
| Cognitive | | | | | | | |
| To get information about something | 0.5 | 0.9 | 7.3 | 42.0 | 49.3 | 4.38 | 0.70 |
| To help with my research | 0.7 | 0.7 | 9.1 | 42.2 | 47.3 | 4.34 | 0.72 |
| Because it's easy to get information I need | 0.5 | 1.1 | 9.5 | 47.7 | 41.2 | 4.27 | 0.71 |
| To learn new things | 0.5 | 0.7 | 8.2 | 55.6 | 35.0 | 4.24 | 0.66 |
| It's more convenient than going to the library | 4.8 | 7.7 | 26.8 | 35.0 | 25.7 | 3.96 | 1.08 |
| To keep up to date on popular sites | 1.4 | 4.5 | 23.2 | 44.1 | 26.8 | 3.90 | 0.89 |
| Overall mean | | | | | | 4.18 | |
| Affective | | | | | | | |
| Because it's entertaining | 0.2 | 1.8 | 17.0 | 46.8 | 34.2 | 4.12 | 0.76 |
| Because it's exciting | 0.9 | 1.8 | 21.6 | 47.3 | 28.4 | 4.00 | 0.80 |
| Because it's stimulating | 0.9 | 4.3 | 38.9 | 43.6 | 12.3 | 3.62 | 0.78 |
| To role play or experiment with my identity | 6.1 | 16.8 | 40.7 | 28.9 | 7.5 | 3.41 | 0.99 |
| Overall mean | | | | | | 3.78 | |
| Personal Integration | | | | | | | |
| I can do things in my own space | 0.9 | 1.8 | 17.5 | 46.6 | 33.2 | 4.09 | 0.80 |
| Because I can do whatever I want | 1.8 | 4.5 | 32.7 | 39.5 | 21.5 | 3.74 | 0.90 |
| To put off doing something I should be doing | 3.0 | 7.3 | 35.5 | 37.7 | 16.5 | 3.57 | 0.94 |
| Because I feel more in control | 2.3 | 7.5 | 51.4 | 28.8 | 10.0 | 3.36 | 0.84 |
| Because I can act however I want | 4.3 | 15.7 | 35.9 | 31.6 | 12.5 | 3.32 | 1.02 |
| Overall mean | | | | | | 3.61 | |
| Escape | | | | | | | |
| To relax and unwind | 0.9 | 0.9 | 10.9 | 50.3 | 37.0 | 4.21 | 0.74 |
| Because it makes me feel less tense | 0.5 | 3.2 | 22.3 | 43.9 | 30.1 | 4.00 | 0.83 |
| Because it's a pleasant break from my routine | 0.7 | 2.9 | 25.0 | 44.4 | 27.0 | 3.95 | 0.81 |
| To get away from pressure and responsibilities | 5.7 | 10.7 | 30.7 | 34.8 | 18.1 | 3.49 | 1.08 |
| Overall mean | | | | | | 3.91 | |
| Social Integration | | | | | | | |
| To keep in touch with people | 0.9 | 0.9 | 11.8 | 54.1 | 32.3 | 4.15 | 0.73 |
| Because I can talk with different people | 2.5 | 5.2 | 24.1 | 46.6 | 21.6 | 3.79 | 0.92 |
| Because it's a distraction from loneliness | 2.3 | 7.0 | 28.2 | 40.9 | 21.6 | 3.72 | 0.95 |
| Because I need to talk to someone | 3.4 | 9.1 | 37.7 | 32.3 | 17.5 | 3.51 | 0.99 |
| Overall mean | | | | | | 3.79 | |

Table 4: Distribution of respondents according to gratification internet usage (n=440).

| Variables | Pearson's r | P |
|---------------------------|-------------|-------|
| Attitudes toward Internet | 0.089 | 0.063 |

*p<0.05

Table 5: Correlation between age and attitudes towards internet (n=440).

| Variables | Pearson's r | P |
|----------------------------|-------------|-------|
| Problems in Using Internet | -0.128 | 0.007 |

*p<0.05

Table 6: Correlation between age and problems in using internet (n=440).

| Variables | Pearson's r | P |
|----------------------------------|-------------|-------|
| Gratifications of Using Internet | 0.091 | 0.055 |

*p<0.05

Table 7: Correlation between age and gratifications of using internet (n=440).

| Variable Items | Mean | t | p |
|----------------|---------|--------|-------|
| Undergraduate | 71.3966 | -0.825 | 0.410 |
| Postgraduate | 72.2308 | | |

*p<0.05

Table 8: t-test between level of the study and attitudes toward using internet (n=440).

| Variable Items | Mean | t | p |
|----------------|---------|-------|------|
| Undergraduate | 37.7644 | 3.776 | 0.00 |
| Postgraduate | 34.8681 | | |

*p<0.05

Table 9: t-test between level of the study and problems in using internet (n=440).

| Variable Items | Mean | t | p |
|----------------|---------|--------|-------|
| Undergraduate | 88.3276 | -1.183 | 0.237 |
| Postgraduate | 89.9780 | | |

*p<0.05

Table 10: t-test between level of the study and gratifications of internet usage (n=440).

| Variable Items | Mean | t | p |
|----------------|---------|--------|-------|
| Male | 70.8380 | -1.253 | 0.211 |
| Female | 71.9329 | | |

*p<0.05

Table 11: t-test between gender and attitudes toward using internet (n=440).

| Variable Items | Mean | t | p |
|----------------|---------|-------|-------|
| Male | 37.4085 | 0.535 | 0.824 |
| Female | 37.0268 | | |

*p<0.05

Table 12: t-test between gender and problems in using internet (n=440).

| Variable Items | Mean | t | p |
|----------------|---------|------|-------|
| Male | 88.7465 | 0.40 | 0.968 |
| Female | 88.6980 | | |

*p<0.05

Table 13: t-test between gender and gratifications of using internet (n=440).

gratifications of using the Internet were measured by an independent *t*-test. The results indicated there was no significant difference between gender and gratifications of using Internet (Table 13).

Relationship among field of study based on the faculty and attitudes toward using internet

The one-way ANOVA procedure was used to test for significant differences between field of study based on the faculty and attitudes toward using Internet among respondents. The ANOVA results revealed that there were no significant differences among field of study based on the faculty and attitudes toward using Internet (Table 14).

Relationship among field of study based on the faculty and problems of using internet

The one-way ANOVA procedure was used to test for significant differences between field of study based on the faculty and problems of

using Internet among respondents. The ANOVA results revealed that there were no significant differences among field of study based on the faculty and problems of using Internet (Table 15).

Relationship among field of study based on the faculty and gratifications of using internet

The one-way ANOVA procedure was used to test for significant differences between fields of study based on the faculty and gratifications of using Internet among respondents. The ANOVA results revealed that there were no significant differences among field of study based on the faculty and gratifications of using Internet (Table 16).

Relationship between income and attitudes towards using internet

A correlation analysis was conducted between income and attitudes toward of using Internet. The results indicated that there was a positive

| Field of study | Mean | | Sum of Square | df | mean2 | F | p |
|---|----------------|----------------|------------------|------------|--------|-------|-------|
| Agriculture | 70.3404 | | | | | | |
| Biotechnology and Bimolecular Science | 69.2222 | | | | | | |
| Computer science and Information Technology | 74.5714 | | | | | | |
| Design and architecture | 72.6667 | | | | | | |
| Economic | 72.2051 | | | | | | |
| Education | 69.3000 | | | | | | |
| Engineering | 70.6000 | | | | | | |
| Environment | 71.8000 | | | | | | |
| Food Science | 72.3333 | | | | | | |
| Forestry | 72.2000 | | | | | | |
| Graduate Study Management | 70.3182 | | | | | | |
| Human Ecology | 71.7813 | | | | | | |
| Medicine | 70.5128 | | | | | | |
| Modern Languagesand Communication | 70.7750 | | | | | | |
| Science | 72.8673 | Between Groups | 806.717 | 15 | 53.781 | 0.724 | 0.760 |
| Veterinary | 67.0000 | Within Groups | 31480.499 | 424 | 74.246 | | |
| Total | 69.2222 | Total | 32287.216 | 439 | | | |

*p<0.05

Table 14: Relationship between field of study based on the faculty and attitudes toward using internet (n=440).

| Field of Study | Mean | | Sum of Square | df | mean2 | F | p |
|---|----------------|----------------|------------------|------------|--------|-------|-------|
| Agriculture | 35.8723 | | | | | | |
| Biotechnology and Bimolecular Science | 36.7778 | | | | | | |
| Computer science and Information Technology | 35.2857 | | | | | | |
| Design and architecture | 38.7333 | | | | | | |
| Economic | 36.3590 | | | | | | |
| Education | 36.4000 | | | | | | |
| Engineering | 37.5500 | | | | | | |
| Environment | 35.6000 | | | | | | |
| Food Science | 39.2222 | | | | | | |
| Forestry | 40.9000 | | | | | | |
| Graduate Study Management | 37.2273 | | | | | | |
| Human Ecology | 37.0938 | | | | | | |
| Medicine | 38.0769 | | | | | | |
| Modern Languages and Communication | 36.4500 | | | | | | |
| Science | 37.3186 | Between Groups | 484.488 | 15 | 32.299 | 0.886 | 0.580 |
| Veterinary | 37.4286 | Within Groups | 15459.612 | 424 | 36.461 | | |
| Total | 37.1500 | Total | 15944.100 | 439 | | | |

*p<0.05

Table 15: Relationship between field of study based on the faculty and problems of using internet (n=440).

| Field of Study | Mean | | Sum of Square | df | mean2 | F | p |
|---|----------------|----------------|------------------|------------|---------|-------|-------|
| Agriculture | 87.2553 | | | | | | |
| Biotechnology and Bimolecular Science | 92.8889 | | | | | | |
| Computer science and Information Technology | 95.0000 | | | | | | |
| Design and architecture | 88.2667 | | | | | | |
| Economic | 88.3333 | | | | | | |
| Education | 89.5000 | | | | | | |
| Engineering | 86.3500 | | | | | | |
| Environment | 87.6000 | | | | | | |
| Food Science | 93.3333 | | | | | | |
| Forestry | 88.3000 | | | | | | |
| Graduate Study Management | 87.6818 | | | | | | |
| Human Ecology | 89.6250 | | | | | | |
| Medicine | 85.5128 | | | | | | |
| Modern Languages and Communication | 87.5000 | | | | | | |
| Science | 90.0354 | Between Groups | 2420.840 | 15 | 161.389 | 1.150 | 0.309 |
| Veterinary | 81.2857 | Within Groups | 59483.078 | 424 | 140.290 | | |
| Total | 88.7136 | Total | 61903.918 | 439 | | | |

*p<0.05

Table 16: Relationship between field of study based on the faculty and gratifications of using internet (n=440).

| Variables | Pearson's r | P |
|----------------------------------|-------------|-------|
| Attitudes towards Using Internet | 0.943 | 0.003 |

*p<0.05

Table 17: Correlation between income and attitudes towards using internet (n=440).

| Variables | Pearson's r | P |
|----------------------------|-------------|-------|
| Problems in Using Internet | -0.138 | 0.004 |

*p<0.05

Table 18: Correlation between income and problems in using internet (n=440).

| Variables | Pearson's r | P |
|----------------------------------|-------------|-------|
| Gratifications of Using Internet | 0.743 | 0.016 |

*p<0.05

Table 19: Correlation between income and gratifications of using internet (n=440).

and significant relationship between income and attitudes towards using Internet($r=0.943$, $p>0.05$) (Table17).

Relationship between income and problems in using internet

A correlation analysis was conducted between income and problems of using Internet. The results indicated that there was a negative and significant relationship between problems in using Internet and income ($r=-0.138$, $p>0.05$) (Table18).

Relationship between income and gratifications of using internet

A correlation analysis was conducted between income and gratifications of using Internet. The results indicated that there was significant and positive relationship between gratifications of using Internet and income($r=0.743$, $p<0.05$) (Table19).

Discussion and Conclusion

The results of the present study reflect attitude toward Internet is the fastest way to research knowledge was a predominant opinion toward the use of the Internet followed by "Internet is a universal library". Therefore, the respondents have a positive attitude toward the impact the Internet brings to people's lives.

Current study was found that regarding the problems in using

the Internet faced by the respondents, highest complain related to slow Internet connection followed by overload of information on the Internet. The finding of this study was consistent with previous studies that reported the main problem in using the Internet related to the slowness in downloading [11,18,19].

Regarding to the gratification of Internet usage in the cognitive dimension "to get information about something" is the highest mean. In the affective dimension "because it's entertaining" was the highest mean. The item "I can do things in my own space" was the highest mean in personal integration dimension in gratification of Internet usage. In escape dimension "To relax and unwind" was the highest mean. In the social integration dimension "to keep in touch with people" was the highest mean". Cognitive dimension was the highest dimension among all gratification of Internet usage dimensions and social integration was the lowest.

The results showed that there is significant relationship between age and attitudes towards Internet. It may be due to the fact that, people have more experience in using Internet. There is significant relationship between problems in using Internet and gratification of Internet usage. The relationship between level of study and problem is significant. The relationship between income and attitudes towards Internet, problems in using Internet and gratification of Internet usage are significant.

The mean differences for each group of respondents' level of the study and attitudes toward Internet usage indicated that there was no significant difference between level of the study and attitudes toward Internet usage. Moreover, the results indicated there was no significant difference between level of the study and gratifications of Internet usage. In addition, the results indicated there was significant difference between level of the study and problems in using Internet. The findings showed there was no significant difference between gender and attitudes towards using Internet. Also, there was no significant difference between gender and problems in using Internet. There was no significant difference between gender and gratification of using Internet.

The mean differences for each group of respondents' gender and gratifications of using Internet were measured by independent t-test. The results indicated there was no significant difference between gender and gratifications of using Internet. Furthermore, there is no

difference between gender and attitude toward Internet. Also, there is no difference between gender and problem in using Internet.

The results revealed that there were no significant differences among field of study based on the faculty and attitudes toward using Internet. The findings revealed that there were no significant differences among field of study based on the faculty and problems of using Internet. The results showed that there were no significant differences among field of study based on the faculty and gratifications of using Internet.

The results indicated that there was a positive and significant relationship between attitudes towards using Internet and income. The results displayed that there was a negative and significant relationship between problems in using Internet and income. The results indicated that there was significant and positive relationship between gratifications of using Internet and income.

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